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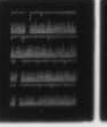
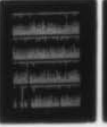
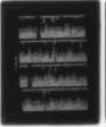
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INTRODUCTION

This bibliography has been compiled under an interagency agreement as a continuing effort to document current Soviet-bloc developments in the quantum electronics field. The period covered is November-December 1977, and includes all significant laser-related articles received by us in that interval. The bulk of the entries come from the approximately 30 periodicals which are known to publish the most significant findings in Soviet laser technology. Citations from the Russian Reference Journals are included, as well as entries from the CIRC data base not otherwise covered. Laser items from the popular or semipopular press are generally omitted.

For convenience we have abbreviated frequently cited source names; a source abbreviations list and an author index are included. All sources cited with no parenthetical notation are available at the Library of Congress. A parenthetical entry (RZh, KL) indicates the secondary source in which the citation was found as a bibliographic entry or abstract, but for which the original source is not currently available at the Library. The authors' affiliations are indicated by the numbers in parentheses following the authors' names in the text and are listed in the Author Affiliations List. New affiliations are assigned a new number and are added to a cumulative list which includes all affiliations from 1969 to the present. Only those affiliations which appear in this issue are listed in this issue's Author Affiliations List.

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20. ABSTRACT → This is the Soviet Laser Bibliography for November-December 1977 and is No.32 in a continuing series on Soviet laser developments. The coverage includes basic research on solid state, liquid, gas and chemical lasers; components; nonlinear optics; spectroscopy of laser materials; ultrashort pulse generation; theoretical aspects of advanced lasers; and general laser theory. Laser appli- cations are listed under biological effects; communications; beam propagation; computer technology; holography; laser-induced chemical reactions; measurement of laser parameters; laser measurement applications; laser-excited optical ef- fects; beam-target interaction; and plasma generation and diagnostics. ↑		

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I. BASIC RESEARCH

A. SOLID STATE LASERS

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529. IV Vsesoyuznyy simpozium po rasprostraneniyu lazernogo izlucheniya v atmosfere. Metody i apparatura v eksperimental'nykh issledovaniyakh protsessov rasprostraneniya lazernogo izlucheniya v atmosfere. Tezisy dokladov (Fourth All-Union Symposium on the Propagation of Laser Radiation in the Atmosphere. Methods and equipment in experimental studies of the processes of laser radiation propagation in the atmosphere. Summaries of the reports). Tomsk, 1977, 93 p. (RZhGeofiz, 11/77, 11B53)
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532. Neyman, M. S. (116). Moshchnyye generatory sverkhvysokikh chastot i opticheskiye kvantovyye generatory (High-power masers and lasers). Moskovskiy aviatsionnyy institut, 1977, 81 p. (KL, 51/77, 43503)
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534. Problemy distantsionnogo zondirovaniya atmosfery (Problems of remote probing of the atmosphere). Institut optiki atmosfery SOAN, Tomsk, 1976 140 p. (RZhGeofiz, 12/77, 12B66)

IV. SOURCE ABBREVIATIONS

(CIRC Codens)

BAPS ser sci chim		Bulletin de l'Academie Polonaise des Sciences (chemistry series)
BAPS ser sci math astron et phys		Bulletin de l'Academie Polonaise des Sciences. (math, astronomy, physics series)
DAN Arm	(DANAA)	Akademiya nauk Armyanskoy SSSR. Doklady
DAN BSSR	(DBLRA)	Akademiya nauk Belorusskoy SSSR. Doklady
DAN SSSR	(DANKA)	Akademiya nauk SSSR. Doklady
DAN UkrSSR	(DUKAB)	Akademiya nauk UkrSSR. Dopovidi. Seriya A
FAIO	(IFAOA)	Akademiya nauk SSSR. Izvestiya. Fizika atmosfera i okeana
FGiV	(FGVZA)	Fizika gorennya i vzryva
FTP	(FTPPA)	Fizika i tekhnika poluprovodnikov
FTT	(FTVTA)	Fizika tverdogo tela
IAN Arm	(IAAFA)	Akademiya nauk Armyanskoy SSSR. Izvestiya. Fizika
IAN Uz	(IUZFA)	Akademiya nauk Uzbekskoy SSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk
IAN Fiz	(IANFA)	Akademiya nauk SSSR. Izvestiya. Fizika
IT	(IZTEA)	Izmeritel'naya tekhnika
IVUZ Fiz	(IVUFA)	Izvestiya vysshikh uchebnykh zavedeniy. Fizika
IVUZ Geodiz		Izvestiya vysshikh uchebnykh zavedeniy. Geodiziya
IVUZ Priboro	(IVUBA)	Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye
IVUZ Radioelektr	(IVUZB)	Izvestiya vysshikh uchebnykh zavedeniy. Radioelektronika
IVUZ Radiofiz	(IVYRA)	Izvestiya vysshikh uchebnykh zavedeniy. Radiofizika
KE	(KVEKA)	Kvantovaya elektronika
KhVE	(KHKVA)	Khimiya vysokikh energiy

KL	(KNLTA)	Knizhnaya letopis'
KSpF	(KRSFA)	Kratkiye soobshcheniya po fizike
MZhIG	(IMZGA)	AN SSSR. Izvestiya. Mekhanika zhidkosti i gaza
NM	(IVNMA)	Akademiya nauk SSSR. Izvestiya. Neorganicheskiye materialy
OIS	(OPSPA)	Optika i spektroskopiya
OMP	(OPMPA)	Optiko-mekhanicheskaya promyshlennost'
RIE	(RAELA)	Radiotekhnika i elektronika
RZhF	(RZFZA)	Referativnyy zhurnal. Fizika
RZhGeod	(RZGAB)	Referativnyy zhurnal. Geodeziya i aeros'yemka
RZhGeofiz	(RZGFA)	Referativnyy zhurnal. Geofizika
RZhRadiot	(RZRAB)	Referativnyy zhurnal. Radiotekhnika
Sb1		Sbornik. "Laser und ihre Anwendungen". Dresden. 28 March-1 April 1977.
Sb2		IV Vsesoyuznyy simpozium po rasprostra- neniyu lazernogo izlucheniya v atmosfere. Metody i apparatura. Tezisy dokladov. Tomsk, 1977.
Sb3		Sbornik XXX Gertsenovskogo chteniya. Fiz. elektronika. Leningrad, 1977.
Sb4		Sbornik XXX Gertsenovskogo chteniya. Teoriya fiz. i astronom. Leningrad, 1977.
Sb5		TsAGI [Tsentral'nyy aero-gidrodinamicheskii institut]. Uchenyye zapiski, no.6, 1977.
Sb6		Sbornik shirokopolosnogo ustroystva. SVCh i sistemy optimal'noy obrabotki signalov. Novosibirsk, 1976.
Sb7		IX Vsesoyuznaya akusticheskaya konferentsiya, 1977. Sekts. "Ch". Moskva, 1977.

- Sb8 IV Vsesoyuznyy simpozium po rasprostraneniyu lazernogo izlucheniya v atmosfere. Ne-lineynyye efekty. Tezisy dokladov. Tomsk, 1977.
- Sb9 Apparatura i metody rentgenovskogo analiza, no.18. Leningrad, Mashinostroyeniye, 1977.
- Sb10 Nauchno-tekhnicheskiy progress i gigiyena truda v mashinostroyenii. Moscow, 1977.
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- Sb12 Bul. Inst. politehn. "Gh. Gheorghiu Dej.", Bucuresti, v.38, no.3, 1976.
- Sb13 Problemy golografiy, no.7, Moscow, 1976.
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- Sb16 Radiofizicheskoye issledovaniye atmosfery. Leningrad, Gidrometeoizdat, 1977.
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- Sb18 Sposoby zapisi informatsii na besserebryannikh nositelyakh, no.8, Kiyev, Vishcha shkola, 1977.
- Sb19 Golograficheskiye metody i apparatura primenyayemaya v fizicheskoy issledovaniy i ikh metrologicheskoye obespecheniye. Moscow, 1976.
- Sb20 Metrologicheskoye obespecheniye rabot v oblasti energ. fotometrii. Moscow, 1976.
- Sb21 Fizicheskiye metody issledovaniya prozrachnykh neodnorodnostey. Moscow, 1977.
- Sb22 Nekontaktnyye metody izmereniya okeanograficheskikh parametrov. Moscow, Gidrometeoizdat, 1977.

Sb23		TsAGI. Uchenyye zapiski, no.2, 1977.
Sb24		Reofizika, Minsk, 1977.
Sb25		Nauchnyye trudy po problemam mikro-elektroniki. Moskovskiy institut elektron. tekhniki, no.30, 1976.
Sb26		Voprosy vodnogo khozyaystva, no.2, Minsk, Uradzhay, 1976.
Sb27		Fazovyye perekhody metall-dielektrik, kratkoye sodержaniye dokladov prestavl. na II Vsesoyuznoy konferentsii po fazovym perekhodam metall-dielektrik, L'vov, 1977. Moscow-L'vov, 1977.
Sb28		Fiz. struktury i svoystva tverdykh tel. Kuybyshev, 1976.
Sb29		Svoystva nizkotemperaturnoy plazmy i metody yeye diagnostiki. Novosibirsk, Nauka, 1977.
Sb30		TsAGI. Uchenyye zapiski, no.5, 1977.
TKiT	(TKTEA)	Tekhnika kino i televideniya
Tr1		Trudy Leningradskogo instituta tochnoy mekhaniki i optiki, no.88, 1977.
Tr2		Trudy NII gidrometeorologicheskogo priborostroeniya, no.34, 1977.
Tr3		Trudy vestn. Kiyev. politekhn. instituta, Seriya radioelektroniki, no.14, 1977.
Tr4		AN SSSR, Trudy FIAN, v.102, 1977.
Tr5		Trudy Moskovskogo energ. instituta, no.315, 1977.
Tr6		Trudy Moskovskogo energ. instituta, no.317, 1977.
Tr7		Trudy gos. NI tsentra izucheniya prirodnkh resursov, no.4, 1977.
Tr8		Trudy Moskovskogo vyssh. tekhn. uchilishcha, no.252, 1977.

Tr9		Trudy Leningradskogo instituta tochnoy mekhaniki i optiki, no.89, 1977.
Tr10		Trudy gos. gidrologicheskogo instituta, no.232, 1977.
Tr11		Trudy gos. projekt. i NII po kompleks proyektir. predpriyatiy. poligr. promyshlennosti, no.11, 1977.
TVT	(TVYTA)	Teplofizika vysokikh temperatur
UFN	(UFNAA)	Uspekhi fizicheskikh nauk
UFZh	(UFIZA)	Ukrainskiy fizicheskii zhurnal
VMU	(VMUFA)	Moskovskiy universitet. Vestnik. Seriya fizika, astronomiya
ZhETF	(ZEIFA)	Zhurnal eksperimental'noy i teoreticheskoy fiziki
ZhETF P	(ZFPRA)	Pis'ma v zhurnal eksperimental'noy i teoreticheskoy fiziki
ZhNiPFik	(ZNPFA)	Zhurnal nauchnoy i prikladnoy fotografii i kinematografii
ZhPMTF	(ZPMFA)	Zhurnal prikladnoy mekhniki i tekhnicheskoy fiziki
ZhPS	(ZPSBA)	Zhurnal prikladnoy spektroskopii
ZhTF	(ZTEFA)	Zhurnal tekhnicheskoy fiziki
ZhTF P	(PZTFD)	Pis'ma v zhurnal tekhnicheskoy fiziki

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136. Uzhgorod State University (Uzhgorodskiy gos. universitet)
139. All Union Electrotechnical Institute (Vsesoyuznyy elektrotekhnicheskiy institut)
141. All Union Scientific Research Institute of Opticophysical Measurement (VNII optiko-fizicheskikh izmereniy)
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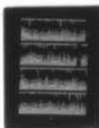
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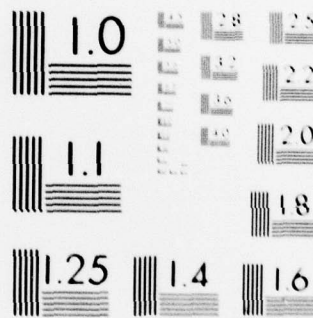


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